SPIRANTHES CHIANGII (ORCHIDACEAE), NEW SPECIES

FROM THE CHIHUAHUAN DESERT REGION

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Continuing studies of the flora of the Chihuahuan Desert Region, supported in part by National Science Foundation grant BMS 73-00898-AO2, have yielded specimens of a species of orchid that I have been unable to assign to any previously described species and have been unable to match with any previously collected specimens. I am pleased to dedicate this new species to my student, one of its collectors, Fernando Chiang Cabrera, now on the staff of the Institute de Biología, Universidad Nacional Autónoma de México in Mexico City.

SPIRANTHES CHIANGII M. C. Johnston, sp. nov. Herbae perennae 27--46 cm. altae; radices elongatae tuberosae ad 10 cm. longae, 1 cm. crassae; folia basalia ignota ut videtur fugacia, caulina 2.5--4 cm. longa; inflorescentia moderate densa 50--90-flora ll--25 cm. longa l--1.5 cm. crassa, internodiis sae-pe 2--4 mm. longis pilis glandularibus; flores pallidae virides; sepala lanceolata vel sepala lateralia lanceo-linearia 6--7 mm. longa dorsaliter rugulosa basi 3-nervata non decursiva; petala dorsalia oblongo-linearia 6--7 mm. longa; labelum subulatum 6--7 mm. longum omnino inornatum distaliter margine inflexis; rostellum minutum truncatum, ovarium 5--7 mm. longum anguste obovoideum pilis glandularibus; fructus 6--7 mm. longus leviter lateraliter compressus asymmetrice obovata.

TYPE: MEXICO, Coahuila, Sierra de Jimulco, ca. 3 km. north of Mina San José, 25°8′ north latitude, 103°13′30″ west longitude, ca. 2500 m. alt., mineralized limestone slopes with chaparral of Quercus, etc., 27 September 1972, F. Chiang, T. L. Wendt and M. C. Johnston 955le (LL, holotype).

Other specimens seen: Coahuila, type locality, <u>Chiang</u>, <u>et al. 9548f</u> (LL); Sierra de la Paila, southwestern quadrant, peak above head of Cañón Corazón del Toro and Mina de la Abundancia, $25^{\circ}54^{\prime}30''$ north latitude, $101^{\circ}38'$ west longitude, ca 2100 m. alt., chaparral of <u>Quercus</u>, <u>Vauquelinia</u>, <u>Cercocarpus</u>, etc., on gypseous limestone slopes, 5 November 1972, <u>T. L. Wendt</u>,

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F. Chiang and M. C. Johnston 10108a (LL, unicate). Nuevo León, 44 km. northeast of Doctor Arroyo along highway 29, on limestone rocky soil, rare among Agave, also with Juniperus, Hesperaloe, Opuntia, Yucca, etc., 23°59′ north latitude, 100°1′ west longitude, 1800 m. alt., 9 September 1971, James Henrickson 6605 (LL, unicate).

This rare species is almost confined to the Chihuahuan Desert Region as that region is defined by Johnston. Henrickson 6605 was strictly speaking collected just outside the region near its eastern margin.

Spiranthes chiangii seems to be one of the least "decorated" plants of its genus, in view of the tiny, truncate rostellum and wholly unadorned and unlobed subulate lip. In the treatment of Mexican orchids by Williams (1951) it keys to Spiranthes polyantha Reichenbach filius. But S. polyantha comprises even more delicate nearly glabrous plants with slender, more or less tubular perianth and few flowers in a single loose helix. Spiranthes chiangii appears to be perfectly distinct.

LITERATURE CITED

- Johnston, M. C. 1977. Brief resumé of the botanical, including vegetational, features of the Chihuahuan Desert Region with special emphasis on their uniqueness. In R. H. Wauer and D. H. Riskind (eds.), Transactions of of Symposium on the Biological Resources of the Chihuahuan Desert Region United States and Mexico. U. S. Department of the Interior National Park Service Transactions and Proceedings Series Number Three. xxii, 658 pp.
- Williams, L. O. 1951. The Orchidaceae of Mexico. Ceiba 2: 1--244.